

MINUTES OF SPECIAL MEETING  
CASS COUNTY JOINT WATER RESOURCE DISTRICT  
GOVERNORS' CONFERENCE CENTER  
CASSELTON, NORTH DAKOTA  
APRIL 8, 2014

The Cass County Joint Water Resource District met on Tuesday, April 8, 2014, at 1:30 p.m. at the Governors' Conference Center, Casselton, North Dakota.

Present were Mark Brodshaug and Dan Jacobson, Southeast Cass Water Resource District; Rodger Olson, Jurgen Suhr and Gerald Melvin, Maple River Water Resource District; Raymond Wolfer, Rush River Water Resource District; Carol Harbeke Lewis, Secretary-Treasurer; Brittany C. Moen, Administrative Assistant; Chad Engels and Mike Opat, Engineers for the Board; Pat Downs, Red River Retention Authority; Jon Roeschlein, Bois de Sioux Watershed District Administrator; and those whose names appear on the attached roster.

Manager Olson called the meeting to order and introductions were made.

**Buffalo Creek Watershed**

Chad Engels explained the purpose of the meeting was to discuss flood risk reduction in the Buffalo Creek Watershed, which has experienced repetitive flooding, including 6 historic floods in the last 14 years. He displayed numerous pictures showing the effects overland flooding has had on transportation in rural areas, making roads impassable at times, washing out roads and bridges, stranding homeowners and delaying planting in the fields. Mr. Engels stressed that any future flood risk reduction project constructed in the Buffalo Creek Watershed should be constructed for the primary purpose of benefitting local agriculture and the local rural community. He said projects should not be constructed for the primary purpose of benefitting Red River communities, although these areas would benefit secondarily.

Pat Downs reviewed the potential funding available from several cost-share partners for future flood risk reduction projects, and gave an example of how much a theoretical \$10 million project would cost locally. Funding sources through new North Dakota State Water Commission cost-share policy, new Federal Farm Bill, increased Red River Joint Water Resource District cost-share and Cass County flood sales tax all have the potential to make detention projects in the Buffalo Creek Watershed the most affordable they have ever been.

Mr. Engels displayed maps of the 192 square mile Buffalo Creek Watershed, including the Garsteig and Embden Dams, which control approximately 45% of the Buffalo Creek Watershed combined.

Mr. Engels explained that random areas of the Buffalo Creek Watershed were run through models to show if any flood reduction benefits could be seen in the watershed with the use of detention sites, and the findings showed the possibility of dramatic improvement. He said there are three different types of water detention projects, on-channel, off-channel and the use of existing water bodies. Mr. Engels said off-channel sites would be the most effective in the watershed, and explained what criteria potential sites would need to meet to be effective. Project goals were also reviewed, which include the ability to continue agricultural use of the majority of the project interior. Mr. Engels discussed a potential schedule if landowners in the area are interested in selecting a site for a potential detention project.

Jon Roeschlein then gave a presentation on Bois de Sioux Watershed District's North Ottawa Impoundment Project on the western edge of Grant County, Minnesota. Mr. Roeschlein said the concept for their project was to gather water from a 74 square mile drainage area that currently floods about 10 square miles in the same area, and temporarily store the water until its release would not add to downstream flood damages and to utilize the water to provide secondary benefits while it is held. He explained the secondary benefits of the project are stream flow maintenance, water quality improvement and a resting and feeding habitat for migratory waterfowl and shorebirds, which draws in recreational bird-watching.

The impoundment project consists of a 4 mile diversion channel from the north, and a 4.5 mile diversion channel from the south that intercepts the westward flow of water from the watershed area and diverts it to the inlet channel. A 1.5 mile long inlet channel, diked on both sides, conveys the water to the impoundment project from the higher ground upstream. The impoundment area is 3 square miles and diked on all sides. Eventually the water is released by way of controlled outlets.

The design objectives for the North Ottawa Impoundment Project provide an inlet capacity for 100-year design flood flows into the project, storage of all 10-year design flood inflows with no automatic release, and to limit outflows from all 100-year design floods. Mr. Roeschlein went on to review the operating plan of the project, and noted that during extreme events when the impoundment capacity is expected to be exceeded, the gates can be opened to maximize control to reduce damages. He said low elevation interior dikes will divide impoundment pools within the project into 9 separate pools to allow independent water management.

Mr. Roeschlein displayed pictures and reviewed the design parameters of the project. He also showed a graphical representation of how the project operates.

Mr. Engels reviewed the mailing that was sent out with the meeting notice to landowners, requesting information on areas where they experience flooding and ideas for potential detention sites where flood risk reduction is needed in the Buffalo Creek Watershed. The Board would like to see a partnership with landowners to achieve detention in the area to mitigate flooding impacts. The meeting was then opened up for questions.

Someone said the Garsteig Dam continuously experiences washouts, and is wondering why the Board doesn't choose to repair the dam, rather than look to creating new projects. Mr. Engels said the Board is interested in proposing projects that will store large volumes of water, which could provide a significant benefit to the watershed.

A question was asked how the Board would go about acquiring land once a specific site is identified. Mr. Engels explained with other projects, such as the currently proposed Upper Maple River Dam, the Board is purchasing land fee simple where the project embankment is located and easements will be used for the pool area. He also reminded those present that landowners affected by a project will be able to vote on the project. The Board prioritizes forming a partnership with landowners from the very beginning of projects.

There was a question if the Board has considered paying cash rent rather than purchasing easements to allow the current landowner to continue to operate the land. Mr. Engels said the Board has had preliminary discussions regarding that scenario.

Someone asked if the Board has considered cleaning the drains on Buffalo Creek as a part of these proposed projects. Mr. Engels explained that Board tries to maintain all facilities within the District, but have been unable to do so, as there are no assessment districts in place to fund the work. Mr. Roeschlein added that the projects may not include cleaning, but the opportunity to improve the drainage surrounding a project is evident. He said landowners upstream of the North Ottawa Impoundment Project have been seeing opportunities to improve their field drainage, as the impoundment project stores their water, rather than pushing water onto neighboring fields.

Jason Benson asked those present to consider the cost-benefit ratio of a potential detention project versus the continuous repair work required on roads after floods. He said \$4 to \$5 million has been spent on infrastructure repairs and improvements in Cass County in the last 5 years.

Manager Olson thanked everyone for their comments, and gave the reminder that the funding available at this juncture is strictly for retention projects.

**Adjournment**

There being no further business to be considered by the Board, the meeting adjourned without objection.

APPROVED:

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Mark Brodshaug  
Chairman

ATTEST:

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Carol Harbeke Lewis  
Secretary-Treasurer